POSITION CONFLICT DETECTION AND AVOIDANCE IN A PROGRAMMABLE GRAPHICS PROCESSOR USING TILE COVERAGE DATA

ABSTRACT OF THE DISCLOSURE

Apparatuses and methods for detecting position conflicts during fragment processing are described. Prior to executing a program on a fragment, a conflict detection unit, within a fragment processor checks if there is a position conflict indicating a RAW (read after write) hazard may exist. A RAW hazard exists when there is a pending write to a destination location that source data will be read from during execution of the program. When the fragment enters a processing pipeline, each destination location that may be written during the processing of the fragment is entered in conflict detection unit. During processing, the conflict detection unit is updated when a pending write to a destination location is completed.